

Substitute Sequence Listing

<110> Vermeij, Paul

<120> *Lawsonia intracellularis* 26 kD subunit vaccine

<130> I-2003.023 US

<140>
<141>

<150> PCT/EP2004/053342
<151> 2004-12-08

<160> 2

<170> PatentIn version 3.3

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		Met	Lys	Lys	Leu	Leu	Leu	Leu	Leu	Leu	Ser	Ile	Leu		
		1			5						10				
ttt	cta	acc	cca	agt	att	acc	ttg	gcg	gaa	ggt	aat	act	ttc	aat	gat
Phe	Leu	Thr	Pro	Ser	Ile	Thr	Leu	Ala	Glu	Gly	Asn	Thr	Phe	Asn	Asp
15					20						25				
agt	ttc	aac	aag	gct	aag	cgc	ata	ctg	caa	gat	gag	gtg	tat	tac	gac
Ser	Phe	Asn	Lys	Ala	Lys	Arg	Ile	Leu	Gln	Asp	Glu	Val	Tyr	Tyr	Asp
30					35						40				
cac	caa	gtt	aca	cta	tac	tgc	gga	tat	gaa	tat	gat	gac	caa	aaa	agg
His	Gln	Val	Thr	Leu	Tyr	Cys	Gly	Tyr	Glu	Tyr	Asp	Asp	Gln	Lys	Arg
45					50						55				
ata	tgt	ctc	cct	gat	gga	ttt	ata	gca	gag	aaa	cat	caa	aaa	aga	tca
Ile	Cys	Leu	Pro	Asp	Gly	Ile	Ala	Glu	Lys	His	Gln	Lys	Arg	Ser	
60					65				70				75		
tat	aaa	att	gag	tgg	gaa	cat	agt	gtg	cct	gct	gag	aat	ttt	ggc	aga
Tyr	Lys	Ile	Glu	Trp	Glu	His	Ser	Val	Pro	Ala	Glu	Asn	Phe	Gly	Arg
80					85							90			
gct	ttt	act	gaa	tgg	cgc	gaa	ggt	cat	cct	ctt	tgt	gta	gat	aat	aaa
Ala	Phe	Thr	Glu	Trp	Arg	Glu	Gly	His	Pro	Leu	Cys	Val	Asp	Asn	Lys
95					100							105			
ggt	aaa	agt	ttc	aaa	gga	cga	aaa	tgt	gca	gaa	aaa	gta	aat	aaa	aca
Gly	Lys	Ser	Phe	Lys	Gly	Arg	Lys	Cys	Ala	Glu	Lys	Val	Asn	Lys	Thr
110					115						120				

Substitute Sequence Listing

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tct gtc aat gct gcg aga agc aat aag caa tac tca gag tta ctt gga Ser Val Asn Ala Ala Arg Ser Asn Lys Gln Tyr Ser Glu Leu Leu Gly 140 145 150 155	544
gtt caa tct gct ttt gga acg tgt gag gca aaa ata gat ggg aat aga Val Gln Ser Ala Phe Gly Thr Cys Glu Ala Lys Ile Asp Gly Asn Arg 160 165 170	592
ttc gaa cca ccg gat aga gct aaa ggt caa gta gcc cgt gct gct ctt Phe Glu Pro Pro Asp Arg Ala Lys Gly Gln Val Ala Arg Ala Ala Leu 175 180 185	640
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aga ctt ttt gag gct tgg agt aat atg tat cca gtc gat gaa tgg gag Arg Leu Phe Glu Ala Trp Ser Asn Met Tyr Pro Val Asp Glu Trp Glu 205 210 215	736
tgt aca cga gcc aaa cga atc gaa tct ata cag gga aat gaa aat att Cys Thr Arg Ala Lys Arg Ile Glu Ser Ile Gln Gly Asn Glu Asn Ile 220 225 230 235	784
ttt gta aaa aat atg tgt atc gaa aag ggg tta tgg taa acaaacgagg Phe Val Lys Asn Met Cys Ile Glu Lys Gly Leu Trp 240 245	833
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Lys Arg Ile Leu Gln Asp Glu Val Tyr Tyr Asp His Gln Val Thr Leu
35 40 45

Tyr Cys Gly Tyr Glu Tyr Asp Asp Gln Lys Arg Ile Cys Leu Pro Asp
50 55 60

Gly Phe Ile Ala Glu Lys His Gln Lys Arg Ser Tyr Lys Ile Glu Trp
65 70 75 80

Glu His Ser Val Pro Ala Glu Asn Phe Gly Arg Ala Phe Thr Glu Trp
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Arg Glu Gly His Pro Leu Cys Val Asp Asn Lys Gly Lys Ser Phe Lys
100 105 110

Gly Arg Lys Cys Ala Glu Lys Val Asn Lys Thr Tyr Arg Tyr Met Gln
115 120 125

Ser Asp Met Tyr Asn Leu Phe Pro Ala Val Gly Ser Val Asn Ala Ala
130 135 140

Arg Ser Asn Lys Gln Tyr Ser Glu Leu Leu Gly Val Gln Ser Ala Phe
145 150 155 160

Gly Thr Cys Glu Ala Lys Ile Asp Gly Asn Arg Phe Glu Pro Pro Asp
165 170 175

Arg Ala Lys Gly Gln Val Ala Arg Ala Ala Leu Tyr Met Asp Lys Glu
180 185 190

Tyr Lys Glu Tyr Asn Leu Ser Arg Gln Gln Arg Arg Leu Phe Glu Ala
195 200 205

Trp Ser Asn Met Tyr Pro Val Asp Glu Trp Glu Cys Thr Arg Ala Lys
210 215 220

Arg Ile Glu Ser Ile Gln Gly Asn Glu Asn Ile Phe Val Lys Asn Met
225 230 235 240

Cys Ile Glu Lys Gly Leu Trp
245